

A differential response-type light-receiving device comprising: a semiconductor electrode comprising an electrically conductive layer and a photosensitive layer containing a semiconductor sensitized by a dye; an ion-conductive electrolyte layer; and a counter electrode, the differential response-type light-receiving device making time-differential response to quantity of light to output a photoelectric current. A composite light-receiving device comprising the differential response-type light-receiving device and a stationary response-type light-receiving device, and an image sensor using the differential response-type light-receiving device or the composite light-receiving device are also provided.